

kuvshinov 1-intron.ST25
SEQUENCE LISTING

<110> UniCrop Ltd

<120> A molecular mechanism for gene containment in plants

<130> kuvshinov 1-intron

<160> 13

<170> PatentIn version 3.2

<210> 1

<211> 357

<212> DNA

<213> artificial sequence/Bacillus amyloliquefaciens

<220>

<223> Plant adapted synthetic coding sequence of barnase gene

<400> 1

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taccataagc ttccagataa ctacatcacc aagtctgagg ctgaggctct tggatggggtt	120
gcttctaagg gaaaccttgc tgatgtcgct ccaggaaagt ctatcggagg tgatatcttc	180
tctaacaggg agggaaagct tccaggaaag tctggaagga cctggaggga ggctgatatc	240
aactacacct ctggattcag gaactctgat aggatccttt actcttccga ctggcttatac	300
tacaagacca ctgaccacta ccagaccttc accaagatcc ggtgagagct cgagcgc	357

<210> 2

<211> 299

<212> DNA

<213> artificial sequence/Bacillus amyloliquefaciens

<220>

<223> Plant adapted synthetic coding sequence of barstar gene

<400> 2

cgcgatcct gatcatgaag aaggctgtta tcaacggtga gcaaattagg tctatctctg	60
atcttcacca gacccttaag aaggagcttg ctcttccaga gtactacgga gagaaccttg	120
atgctctatg ggattgcctt accggatggg tggagtaccc acttgttttg gagtggaggc	180
agtttgagca gtctaagcag cttactgaga atggagctga gagtgttctt caggttttcc	240
gggaggctaa ggctgaggga tgcgatatca ccatcattct ttcttgagag ctcgagcgc	299

<210> 3

<211> 529

<212> DNA

<213> artificial sequence

<220>

<223> intron of uidA gene

<400> 3

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actagtttac aaacgtttcc ctatataaac ctcctttgt tcaactgcttt cctccctgct	60
gtggcttctc tccgaagttc atcccgggtcc acctgcaaaa taagtaataa gataaagtaa	120
aaaagttagt atgggtcaag ttattaatac ttttgatgga gttgctgatt atcttcaaac	180
ttatcataaa cttccagata attatattac taaatctgaa gctcaagctc ttggatgggt	240
tgcttctaaa ggaaatcttg ctgatgttgc tccaggaaaa tctattggag gagatatttt	300
ttcaaataga gaaggaaaac ttccaggaaa atctggaaga acatggagag aagctgatat	360
taattatact tctggattta gaaattcaga tagaatcctt tattcatctg attggcttat	420
ttataaaact acagatcatt atcaaacttt tacaaaaatt agataaatat ttgtattttt	480
tgtatgttgt gatcattaat aaataaataa atacatacct cttctgcag	529

<210> 4
 <211> 52
 <212> DNA
 <213> artificial sequence

<220>
 <223> the last (third exon) of uid gene

<400> 4	
gtggaccggg atgaacttcg gagagaagcc acagcagggg ggaaagcagt ga	52

<210> 5
 <211> 51
 <212> DNA
 <213> artificial sequence

<220>
 <223> 5'UTR of barnase gene

<400> 5	
catcccgggtc cacctgcaaa ataagtaata agataaagta aaaaagttag t	51

<210> 6
 <211> 38
 <212> DNA
 <213> artificial sequence

<220>
 <223> 3' flanking signal of the intron of uidA

<400> 6	
actaactttt ttactttatc ttattactta ttttgcag	38

<210> 7
 <211> 474
 <212> DNA
 <213> artificial sequence

<220>
 <223> 35 S promoter of CaMV

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<400> 7
gcggaattca attgatcaac atggtggagc acgacactct cgtctactcc aagaatatca 60
aagatacagt ctcagaagac cagagggcta ttgagacttt tcaacaaagg gtaatatcgg 120
gaaacctcct cggattccat tgcccagcta tctgtcactt catcgaaagg acagtagaaa 180
aggaagatgg cttctacaaa tgccatcatt gcgataaagg aaaggctatc gttcaagaat 240
gcctctaccg acagtgggcc caaagatgga cccccaccca cgaggaacat cgtggaaaaa 300
gaagacgttc caaccacgtc ttcaaagcaa gtggattgat gtgatatctc cactgacgta 360
agggatgacg cacaatccca ctatactcta tctatgatag agtctatata agactctatc 420
actgatagag tgaactctat cactgataga gtcgacggat ccatggaatc cgcg 474

<210> 8
<211> 10
<212> DNA
<213> artificial sequence

<220>
<223> sequence upstream the PstI site

<400> 8
cgcttttctg 10

<210> 9
<211> 10
<212> DNA
<213> artificial sequence

<220>
<223> changed sequence upstream the pstI site

<400> 9
tgccttcctg 10

<210> 10
<211> 10
<212> DNA
<213> artificial sequence

<220>
<223> polyadenylation signal in transcription unit near the upstream element (NUE)

<400> 10
ttattttattt 10

<210> 11
<211> 18
<212> DNA
<213> artificial sequence

<220>
<223> Forward GUS-LcF primer

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<400> 11
atcagcgttg gtgggaaa 18

<210> 12
<211> 18
<212> DNA
<213> artificial sequence

<220>
<223> reverse GUS-LcR primer

<400> 12
acgaatatct gcatcggc 18

<210> 13
<211> 716
<212> DNA
<213> artificial sequence

<220>
<223> Vigna mungo (SH-EP promoter), Bacillus amyloliquefaciens (barnase gene), Escherichia coli (uidA gene)

<400> 13
tattgaatcc ttggctacc attcttgaga aacacaaaca cttcttatat ctgttctaca 60
caattctctg agtgcgtgcc acagtttggg atcttcatga ttgctcattg ttcattgccc 120
taaggaacat gtaacttcct catttattta ttattgcttt tgttttcttc tcactagttt 180
acaaacgttt ccctatataa accctccttt gttcactgct ttctccctg ctgtggcttc 240
tctccgaagt tcatcccggt ccacctgcaa aataagtaat agataaagt aaaaaagtta 300
gtatggctca agttattaat acttttgatg gagttgctga ttatcttcaa acttatcata 360
aactccaga taattatatt actaaatctg aagctcaagc tcttgatgg gttgcttcta 420
aaggaaatct tgctgatgtt gctccaggaa aatctattgg aggagatatt tttcaaata 480
gagaaggaaa acttccagga aaatctggaa gaacatggag agaagctgat attaattata 540
cttctggatt tagaaattca gatagaattc ttattcatc tgattggctt atttataaaa 600
ctacagatca ttatcaaact ttacaaaaa ttagataaat atttgatatt tttgtatgtt 660
gtgatcatta ataaataaat aaatacatc ctcttctgca gcaggaaggc agccga 716